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IS 4449: 2005

भारतीय मानक एल्कोह्लीय पेय — व्हिस्की — विशिष्टि ( चौथा पुनरीक्षण )

Indian Standard

ALCOHOLIC DRINKS — WHISKIES —

SPECIFICATION

(Fourth Revision)

ICS 67.160.10

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002

#### **FOREWORD**

This Indian Standard (Fourth Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Drinks and Carbonated Beverages Sectional Committee had been approved by the Food and Agriculture Division Council.

Whisky is a distilled alcoholic liquor possessing the distinctive colour, aroma and taste of whisky.

This standard was published in 1967 and subsequently revised in 1976, 1980 and 1988.

The present revision has been taken up in order to update the standard in the light of current industrial and trade practices. The requirements of various characteristics have been modified.

In the preparation of this standard, due consideration has been given to the (a) Prevention of Food Adulteration Act, 1954 and the Rules framed thereunder; (b) Standards of Weights and Measures (Packaged Commodities) Rules, 1977; and (c) State Excise Duty Rules which permit the withdrawal of duty free samples for testing. It is recommended that sample for testing by Bureau of Indian Standards, whenever called for, may also be exempted from excise duty. The standard is subject to restrictions imposed under these Rules, wherever applicable.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

#### AMENDMENT NO. 1 JUNE 2010 TO IS 4449 : 2005 ALCOHOLIC DRINKS — WHISKIES — SPECIFICATION

( Fourth Revision )

[Page <b>2</b> , a	clause <b>9.1</b> (f)] —	Substitute 'I	Net quantity; a	nd' for	'Net volume in
ml or cl; and'.					

(FAD 14)	
	Reprography Unit RIS New Delhi India

### Indian Standard

# ALCOHOLIC DRINKS — WHISKIES — SPECIFICATION

## (Fourth Revision)

#### 1 SCOPE

This standard prescribes the requirements and the methods of sampling and test for whiskies.

#### 2 REFERENCES

The following standards contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	Title		
323 : 1959	Specification for rectified spirit (revised)		
1662 : 1974	Specification for glass liquor bottles (second revision)		
3752 : 2005	Alcoholic drinks — Methods of test (second revision)		
3753 : 1984	Methods of sampling for alcoholic drinks (first revision)		
4467 : 1996	Caramel — Specification (second revision)		
6613 : 2002	Neutral spirit for alcoholic drinks — Specification (first revision)		
6749 : 1972	Glossary of terms relating to alcohol (ethyl) industry and trade		
10500 : 1991	Drinking water (first revision)		
13428 : 1998	Packaged natural mineral water — Specification (first revision)		
14348 : 1996	Code for hygienic conditions for alcoholic beverage industry		
14537 : 1998	Polyethylene terephthalate (PET) bottles for packaging of alcohol liquors — Specification		
14543 : 2004	Packaged drinking water (other than packaged natural mineral water) (first revision)		

#### **3 TERMINOLOGY**

For the purpose of this standard, definitions given in IS 6749 shall apply.

#### 4 TYPES

- 4.1 There shall be three types of whiskies designated as follows:
  - a) Malt or grain whisky,
  - b) Blended malt or grain whisky, and
  - c) Whisky...

#### 4.1.1 Malt or Grain Whisky

Malt or grain whisky shall be the alcoholic distillate produced from fermented mash of malted or unmalted cereals or mixture of both. The distillation shall be carried out to a suitable strength in such a way that the distillate has a distinct aroma and taste characteristics derived from raw materials or constituents formed during fermentation. In case of single malt whisky, it shall be the alcoholic distillate produced from fermented mash of malted barley and distilled in potstill only.

#### 4.1.2 Blended Malt or Grain Whisky

Blended malt or grain whisky shall be a mixture of at least 2 percent malt or grain whisky (see 4.1.1) with whisky (see 4.1.3).

#### 4.1.3 Whisky

Whisky shall be made either from neutral spirit conforming to IS 6613 or rectified spirit, Grade I, conforming to IS 323 or a mixture of both.

#### 5 HYGIENIC CONDITIONS

Whiskies shall be manufactured under hygienic conditions (see IS 14348).

#### **6 WATER QUALITY**

Water conforming to IS 14543 or IS 13428 or IS 10500 with or without demineralization shall be used.

#### 7 REQUIREMENTS

#### 7.1 Ethyl Alcohol Content

The ethyl alcohol content in whiskies shall be in the range of 37 to 50 percent by volume (65° to 87.5° proof) or any other strength at 20°/20°C subject to approval by State Excise Authority, when determined according to the method prescribed in 4 of IS 3752. The tolerance limits for ethyl alcohol content shall be ±3.0 percent of the declared strength. However, the

ethyl alcohol content, its tolerance and method of measurement may vary according to the Rules and Regulations prescribed by the State Excise Authority.

## 7.2 Freedom from Sedimentation and Harmful Ingredients

Whiskies shall be free from sediments, suspended matter and any ingredients injurious to health.

#### 7.3 Freedom from Added Colouring Matter

Whiskies shall be free from added colouring matter except caramel conforming to IS 4467.

#### 7.4 Taste and Aroma

Whiskies shall have the characteristic taste and aroma of whisky. To enhance the characteristic flavour of the product, natural/natural extracts/nature identical/artificial flavour permitted under PFA/FEMA GRAS may be used except in case of single malt whiskies.

#### 7.5 Maturity

- 7.5.1 Malt or grain whisky (see 4.1.1), when labelled as matured, shall be matured for a period of not less than one year in wooden vats or barrels.
- 7.5.2 Blended malt or grain whisky (see 4.1.2), when labelled as matured, shall contain malt or grain whisky (see 4.1.1) in the blend which shall be matured for a period of not less than one year in wooden vats or barrels.
- 7.6 Whisky shall also comply with the requirements given in Table 1.

#### **8 PACKING**

8.1 Whiskies may be filled in glass bottles conforming to IS 1662 or plastic bottles made of PET conforming to IS 14537 or any other suitable neutral or non-reactive food grade containers which does not affect its quality. The bottles or containers shall be properly sealed.

- **8.1.1** All new containers shall be cleaned according to **5.6.1** of IS 14348.
- **8.2** Used bottles shall be permitted, if cleaned in a hygienic way by the manufacturer as per **5.6.1.1** of IS 14348.

#### 9 MARKING

- 9.1 The following particulars shall be marked legibly and indelibly on the label/crown/body of the container:
  - a) Name and type of the product;
  - b) Ethyl alcohol contents, in percent, by volume;
  - c) Batch or code number;
  - d) Month and year of packing;
  - e) Name and address of the manufacturer;
  - f) Net volume in ml or cl; and
  - g) Any other markings required under the Standards of Weights and Measures (Packaged Commodities) Rules, 1977, and any other statutory requirements.

NOTE — Geographical designation/names may be used on the label solely for products originating from that geographical region.

#### 9.2 BIS Certification Marking

The product may also be marked with the Standard Mark

9.2.1 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the license for the use of Standard Mark may be granted to manufacturers or producers may be obtained from Bureau of Indian Standards.

#### 10 SAMPLING

Representative samples shall be drawn and conformity of the material in the lot to the requirements of this specification shall be determined in accordance with the method prescribed in IS 3753.

Table 1 Requirements for Whiskies

(Clause 7.6)

Si No.	Characteristic		Requirement		Method of Test,	
			Blended Malt/Grain	Whisky	Ref. to Clause No. of IS 3752	
(1)	(2)	(3)	(4)	(5)	(6)	
. i)	Residue on evaporation, percent (m/v), Max	2	2	2	5	
ii)	Volatile acids as acetic acid (expressed in terms of g/100 litres of absolute alcohol), Max	150	100	50	8	
iii)	Esters as ethyl acetate (expressed in terms of g/100 litres of absolute alcohol), Max	200	150	100	10	
iv)	Higher alcohols as amyl alcohol (expressed in terms of g/100 litres of absolute alcohol), Max	-	750	350	11	
v)	Aldehydes as acetaldehyde (expressed in terms of g/100 litres of absolute alcohol), <i>Max</i>	50	35	15	12	
vi)	Furfural (expressed in terms of g/100 litres of absolute alcohol), Max	12	6	6	13	
vii)	Copper (as Cu), parts per million, Max	10	10	10	15	
viii)	Methyl alcohol (expressed in terms of g/100 litres of absolute alcohol), Max	30	20	10	16	

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This Indian Standard has been developed from Doc: No. FAD 14 (1522).

#### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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